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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/895,868	06/29/2001	Gregory K. Myers	SRI/4483-2	5369

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EXAMINER

COUSO, YON JUNG

ART UNIT	PAPER NUMBER
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2625

DATE MAILED: 01/30/2004

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/895,868

Applicant(s)

MYERS ET AL.

Examiner

Yon Couso

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) 24-43 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-9, 12-19 and 22 is/are rejected.
- 7) ☒ Claim(s) 5, 6, 10, 11, 20, 21 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: _____

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1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-23, drawn to method and apparatus for adjusting a detected text region to produce a rectified image comprising means for computing a base line and a top line, classified in class 382, subclass 292.
 - II. Claims 24-43, drawn to method and apparatus for portably recognizing text comprising means for agglomerating the OCR identified potential text over a plurality of frames in the captured imagery, classified in class 382, subclass 181.

The inventions are distinct, each from the other because:

Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as facsimile and scanner. See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

2. During a telephone conversation with Mr. Tong on January 14, 2004 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-23. Affirmation of this election must be made by applicant in replying to this Office action. Claims 24-43 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

3 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 9, 12, 16-19 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishitani.

As per claims 1 and 16, Ishitani teaches a method and an apparatus for recognizing text in a captured imagery, the apparatus comprising: means for detecting a text region in the captured imagery (22 in figure 1); means for adjusting the detected text region to produce a rectified image (24-32 in figure 1); and means for applying optical character recognition processing to the rectified image to recognize the text in the captured imagery (34 in figure 1).

As per claim 2 and 17, Ishitani teaches that the adjusting means computes a base line and a top line for a line of detected text within the detected text region (P2 in figure 6B and column 8, lines 22-30).

As per claims 3 and 18, Ishitani teaches the base line and the top line correlate substantially to horizontal parallel lines of a rectangular bounding box that is fitted to the line of detected text (figure 6b).

As per claims 4 and 19, Ishitani teaches the base line and the top line are estimated by rotating the line of detected text at various angles and then computing a plurality of horizontal projections over a plurality of vertical edge projections (figure 6b).

As per claims 9 and 22, Ishitani teaches adjusting means further computes a

dominant vertical direction of character strokes for a line of detected text within the detected text region (24v and 26v in figure 10).

As per claim 12, Ishitani teaches binarizing the detected text region prior to applying the OCR processing step (16 in figure 1).

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishitani in view of Tyan et al.

The arguments advanced in paragraph 3 above as to the applicability of the reference are incorporated herein.

As per claim 13, Ishitani does not teach details on applying agglomeration processing subsequent to the OCR processing to produce the text in the captured imagery. However, Tyan discloses on applying agglomeration processing subsequent to the OCR processing to produce the text in the captured imagery (116 in figure 7 and column 8, line 62-column 9, line 5). Given the references at the time the invention was made, it would have been obvious to one of ordinary skill in the art to incorporate any well-known post processing technique into Ishitani's teaching. Tyan's merging process followed by OCR is old and well-known in the art, that mere incorporation of such an old and well-known post-processing technique into Ishitani lacks any criticality.

As per claim 14 Ishitani does not teach details on applying lexicon processing and applying false text elimination processing subsequent to the OCR processing to produce the text in the captured imagery. However, use of lexicon to verify the OCR process is old and well-known in the art because if the merged characters forming a word would find a match in the dictionary, there is a very high chance the OCR was performed correctly (even though its not always true) (official notice).

As per claim 15, Tyan discloses applying false text elimination processing subsequent to the OCR processing to produce the text in the captured imagery (column 9, lines 54-55).

5. Claims 5, 6, 10, 11, 20, 21 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

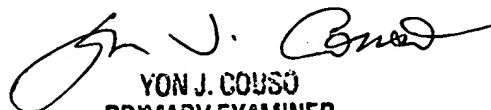
Saitoh, Nakao et al, Takaoka and Lee et al are also cited.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yon Couso whose telephone number is (703) 305-4779. The examiner can normally be reached on 8:30 am –5:00 pm from Monday to Friday

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta, can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800.



YON J. COUSO
PRIMARY EXAMINER

Yjc

1/16/2004